



National Nutrient Database for Standard Reference  
Release 28 slightly revised May, 2016

Statistics Report 09016, Apple juice, canned or bottled, unsweetened, without added ascorbic acid <sup>a</sup>

Report Date: May 22, 2017 00:49 EDT

Nutrient values and weights are for edible portion.

Nutrient	Unit	Value Per100 g	Data Points	Std. Error	Min	Max	df	LB	UB	# Studies	Source	NDB Ref	Last Modified
<strong>Proximates</strong>													
Water <sup>1 2 3</sup>	g	88.24	--	0.091	87.92	88.6	6.0	88.018	88.463	3	Analytical or derived from analytical	--	05/2008
Energy	kcal	46	--	--	--	--	--	--	--	--	Calculated or imputed	--	05/2008
Energy	kJ	191	--	--	--	--	--	--	--	--	Calculated or imputed	--	05/2008
Protein <sup>1</sup>	g	0.10	--	0.008	0.09	0.12	2.0	0.066	0.137	1	Analytical or derived from analytical	--	05/2008
Total lipid (fat) <sup>1</sup>	g	0.13	--	0.013	0.11	0.17	3.0	0.09	0.175	1	Analytical or derived from analytical	--	05/2008
Ash <sup>1</sup>	g	0.23	--	0.027	0.2	0.31	3.0	0.142	0.313	1	Analytical or derived from analytical	--	05/2008
Carbohydrate, by difference	g	11.30	--	--	--	--	--	--	--	--	Calculated or imputed	--	05/2008
Fiber, total dietary <sup>1 2</sup>	g	0.2	--	0.106	0	0.3	2.0	-0.245	0.667	2	Analytical or derived from analytical	--	05/2008
Sugars, total <sup>1</sup>	g	9.62	--	0.128	9.35	9.86	3.0	9.218	10.031	1	Analytical or derived from analytical	--	05/2008

Nutrient	Unit	Value Per100 g	Data Points	Std. Error	Min	Max	df	LB	UB	# Studies	Source	NDB Ref	Last Modified
Sucrose <a href="#">1</a>	g	1.26	--	0.023	1.2	1.31	3.0	1.188	1.333	1	Analytical or derived from analytical	--	05/2008
Glucose (dextrose) <a href="#">1</a>	g	2.63	--	0.035	2.57	2.72	3.0	2.518	2.741	1	Analytical or derived from analytical	--	05/2008
Fructose <a href="#">1</a>	g	5.73	--	0.089	5.51	5.93	3.0	5.453	6.017	1	Analytical or derived from analytical	--	05/2008
Lactose <a href="#">1</a>	g	0.00	--	0.000	0	0	--	--	--	1	Analytical or derived from analytical	--	05/2008
Maltose <a href="#">1</a>	g	0.00	--	0.000	0	0	--	--	--	1	Analytical or derived from analytical	--	05/2008
Galactose <a href="#">1</a>	g	0.00	--	0.000	0	0	--	--	--	1	Analytical or derived from analytical	--	05/2008
<b>Minerals</b>													
Calcium, Ca <a href="#">1</a> <a href="#">3</a> <a href="#">4</a> <a href="#">5</a> <a href="#">6</a> <a href="#">7</a> <a href="#">8</a> <a href="#">9</a> <a href="#">10</a> <a href="#">11</a> <a href="#">12</a> <a href="#">13</a> <a href="#">14</a> <a href="#">15</a> <a href="#">16</a> <a href="#">17</a> <a href="#">18</a>	mg	8	57	0.464	4	26	8.0	6.688	8.818	17	Analytical or derived from analytical	--	05/2008
Iron, Fe <a href="#">1</a> <a href="#">3</a> <a href="#">4</a> <a href="#">5</a> <a href="#">6</a> <a href="#">7</a> <a href="#">8</a> <a href="#">9</a> <a href="#">10</a> <a href="#">11</a> <a href="#">12</a> <a href="#">13</a> <a href="#">14</a> <a href="#">15</a> <a href="#">16</a> <a href="#">17</a> <a href="#">18</a>	mg	0.12	56	0.006	0	0.26	18.0	0.103	0.129	17	Analytical or derived from analytical	--	05/2008
Magnesium, Mg <a href="#">1</a> <a href="#">3</a> <a href="#">4</a> <a href="#">5</a> <a href="#">6</a> <a href="#">7</a> <a href="#">8</a> <a href="#">9</a> <a href="#">10</a> <a href="#">11</a> <a href="#">12</a> <a href="#">13</a> <a href="#">14</a> <a href="#">15</a> <a href="#">16</a> <a href="#">17</a> <a href="#">18</a>	mg	5	58	0.074	4	7	22.0	4.638	4.946	17	Analytical or derived from analytical	--	05/2008
Phosphorus, P <a href="#">1</a> <a href="#">3</a> <a href="#">4</a> <a href="#">5</a> <a href="#">6</a> <a href="#">7</a> <a href="#">8</a> <a href="#">9</a> <a href="#">10</a> <a href="#">11</a> <a href="#">12</a> <a href="#">13</a> <a href="#">14</a> <a href="#">15</a> <a href="#">16</a> <a href="#">17</a> <a href="#">18</a>	mg	7	59	0.162	5	10	16.0	6.771	7.457	17	Analytical or derived from analytical	--	05/2008

Nutrient	Unit	Value Per 100 g	Data Points	Std. Error	Min	Max	df	LB	UB	# Studies	Source	NDB Ref	Last Modified
Potassium, K <a href="#">1</a> <a href="#">3</a> <a href="#">4</a> <a href="#">5</a> <a href="#">6</a> <a href="#">7</a> <a href="#">8</a> <a href="#">9</a> <a href="#">10</a> <a href="#">11</a> <a href="#">12</a> <a href="#">13</a> <a href="#">14</a> <a href="#">15</a> <a href="#">16</a> <a href="#">17</a> <a href="#">18</a>	mg	101	58	1.077	73	116	18.0	98.54	103.06	17	Analytical or derived from analytical	--	05/2008
Sodium, Na <a href="#">1</a> <a href="#">3</a> <a href="#">4</a> <a href="#">5</a> <a href="#">6</a> <a href="#">7</a> <a href="#">8</a> <a href="#">9</a> <a href="#">10</a> <a href="#">11</a> <a href="#">12</a> <a href="#">13</a> <a href="#">14</a> <a href="#">15</a> <a href="#">16</a> <a href="#">17</a> <a href="#">18</a>	mg	4	58	0.205	1	8	25.0	3.197	4.041	17	Analytical or derived from analytical	--	05/2008
Zinc, Zn <a href="#">1</a> <a href="#">3</a> <a href="#">4</a> <a href="#">5</a> <a href="#">6</a> <a href="#">7</a> <a href="#">8</a> <a href="#">9</a> <a href="#">10</a> <a href="#">11</a> <a href="#">12</a> <a href="#">13</a> <a href="#">14</a> <a href="#">15</a> <a href="#">16</a> <a href="#">17</a> <a href="#">18</a>	mg	0.02	59	0.002	0	0.09	16.0	0.018	0.027	17	Analytical or derived from analytical	--	05/2008
Copper, Cu <a href="#">1</a> <a href="#">5</a> <a href="#">7</a> <a href="#">13</a> <a href="#">15</a> <a href="#">16</a>	mg	0.012	--	0.000	0.01	0.02	7.0	0.012	0.013	6	Analytical or derived from analytical	--	05/2008
Manganese, Mn <a href="#">1</a> <a href="#">3</a> <a href="#">4</a> <a href="#">5</a> <a href="#">6</a> <a href="#">7</a> <a href="#">8</a> <a href="#">9</a> <a href="#">10</a> <a href="#">11</a> <a href="#">12</a> <a href="#">13</a> <a href="#">14</a> <a href="#">15</a> <a href="#">16</a> <a href="#">17</a> <a href="#">18</a>	mg	0.074	59	0.006	0.02	0.26	19.0	0.062	0.087	17	Analytical or derived from analytical	--	05/2008
Selenium, Se	µg	0.1	--	0.045	--	--	--	--	--	--	Analytical or derived from analytical	--	05/2008
<b>Vitamins</b>													
Vitamin C, total ascorbic acid	mg	0.9	--	0.179	--	--	--	--	--	--	Analytical or derived from analytical	--	08/1982
Thiamin	mg	0.021	--	0.001	--	--	--	--	--	--	Analytical or derived from analytical	--	08/1982
Riboflavin	mg	0.017	--	0.011	--	--	--	--	--	--	Analytical or derived from analytical	--	08/1982
Niacin <a href="#">1</a>	mg	0.073	--	0.003	0.07	0.08	3.0	0.063	0.084	1	Analytical or derived from analytical	--	05/2008

Nutrient	Unit	Value Per100 g	Data Points	Std. Error	Min	Max	df	LB	UB	# Studies	Source	NDB Ref	Last Modified
Pantothenic acid <sup>1</sup>	mg	0.049	--	--	--	--	--	--	--	--	Analytical or derived from analytical	--	05/2008
Vitamin B-6 <sup>1</sup>	mg	0.018	--	--	--	--	--	--	--	--	Analytical or derived from analytical	--	05/2008
Folate, total	µg	0	--	0.046	--	--	--	--	--	--	Analytical or derived from analytical	--	08/1982
Folic acid <sup>1</sup>	µg	0	--	--	--	--	--	--	--	--	Analytical or derived from analytical	--	05/2008
Folate, food	µg	0	--	0.046	--	--	--	--	--	--	Analytical or derived from analytical	--	05/2008
Folate, DFE	µg	0	--	--	--	--	--	--	--	--	Calculated or imputed	--	07/2008
Choline, total <sup>1</sup>	mg	1.8	--	--	--	--	--	--	--	--	Analytical or derived from analytical	--	05/2008
Betaine <sup>1</sup>	mg	0.1	--	--	--	--	--	--	--	--	Analytical or derived from analytical	--	05/2008
Vitamin B-12	µg	0.00	--	--	--	--	--	--	--	--	Assumed zero	--	08/1982
Vitamin B-12, added	µg	0.00	--	--	--	--	--	--	--	--	Assumed zero	--	09/2004
Vitamin A, RAE	µg	0	--	--	--	--	--	--	--	--	Calculated or imputed	--	05/2008
Retinol	µg	0	--	--	--	--	--	--	--	--	Assumed zero	--	06/2002
Carotene, beta	µg	0	--	--	--	--	--	--	--	--	Calculated or imputed	09004	11/2002

Nutrient	Unit	Value Per100 g	Data Points	Std. Error	Min	Max	df	LB	UB	# Studies	Source	NDB Ref	Last Modified
Carotene, alpha	µg	0	--	--	--	--	--	--	--	--	Calculated or imputed	09004	11/2002
Cryptoxanthin, beta	µg	0	--	--	--	--	--	--	--	--	Calculated or imputed	09004	11/2002
Vitamin A, IU	IU	1	--	--	--	--	--	--	--	--	Analytical or derived from analytical	--	08/1982
Lycopene	µg	0	--	--	--	--	--	--	--	--	Calculated or imputed	09004	11/2002
Lutein + zeaxanthin	µg	16	--	--	--	--	--	--	--	--	Calculated or imputed	09004	11/2002
Vitamin E (alpha-tocopherol)	mg	0.01	--	--	--	--	--	--	--	--	Analytical or derived from analytical	--	08/1982
Vitamin E, added	mg	0.00	--	--	--	--	--	--	--	--	Assumed zero	--	09/2004
Vitamin D (D2 + D3)	µg	0.0	--	--	--	--	--	--	--	--	Assumed zero	--	11/2008
Vitamin D	IU	0	--	--	--	--	--	--	--	--	Assumed zero	--	02/2009
Vitamin K (phylloquinone) <sup>19 20</sup>	µg	0.0	--	--	0	0	1.0	--	--	2	Analytical or derived from analytical	--	05/2008
<b>Lipids</b>													
Fatty acids, total saturated	g	0.022	--	--	--	--	--	--	--	--	Analytical or derived from analytical	--	05/2008
4:0	g	0.000	--	--	--	--	--	--	--	--	Analytical or derived from analytical	--	05/2008
6:0	g	0.000	--	--	--	--	--	--	--	--	Analytical or derived from analytical	--	05/2008

Nutrient	Unit	Value Per100 g	Data Points	Std. Error	Min	Max	df	LB	UB	# Studies	Source	NDB Ref	Last Modified
8:0	g	0.000	--	--	--	--	--	--	--	--	Analytical or derived from analytical	--	05/2008
10:0	g	0.000	--	--	--	--	--	--	--	--	Analytical or derived from analytical	--	05/2008
12:0	g	0.000	--	--	--	--	--	--	--	--	Analytical or derived from analytical	--	05/2008
14:0	g	0.001	--	--	--	--	--	--	--	--	Analytical or derived from analytical	--	05/2008
16:0	g	0.018	--	--	--	--	--	--	--	--	Analytical or derived from analytical	--	05/2008
18:0	g	0.002	--	--	--	--	--	--	--	--	Analytical or derived from analytical	--	05/2008
Fatty acids, total monounsaturated	g	0.006	--	--	--	--	--	--	--	--	Analytical or derived from analytical	--	05/2008
16:1 undifferentiated	g	0.000	--	--	--	--	--	--	--	--	Analytical or derived from analytical	--	05/2008
18:1 undifferentiated	g	0.005	--	--	--	--	--	--	--	--	Analytical or derived from analytical	--	05/2008
20:1	g	0.000	--	--	--	--	--	--	--	--	Analytical or derived from analytical	--	05/2008

Nutrient	Unit	Value Per100 g	Data Points	Std. Error	Min	Max	df	LB	UB	# Studies	Source	NDB Ref	Last Modified
22:1 undifferentiated	g	0.000	--	--	--	--	--	--	--	--	Analytical or derived from analytical	--	05/2008
Fatty acids, total polyunsaturated	g	0.039	--	--	--	--	--	--	--	--	Analytical or derived from analytical	--	05/2008
18:2 undifferentiated	g	0.033	--	--	--	--	--	--	--	--	Analytical or derived from analytical	--	05/2008
18:3 undifferentiated	g	0.007	--	--	--	--	--	--	--	--	Analytical or derived from analytical	--	05/2008
18:4	g	0.000	--	--	--	--	--	--	--	--	Analytical or derived from analytical	--	05/2008
20:4 undifferentiated	g	0.000	--	--	--	--	--	--	--	--	Analytical or derived from analytical	--	05/2008
20:5 n-3 (EPA)	g	0.000	--	--	--	--	--	--	--	--	Analytical or derived from analytical	--	05/2008
22:5 n-3 (DPA)	g	0.000	--	--	--	--	--	--	--	--	Analytical or derived from analytical	--	05/2008
22:6 n-3 (DHA)	g	0.000	--	--	--	--	--	--	--	--	Analytical or derived from analytical	--	05/2008
Fatty acids, total trans	g	0.000	--	--	--	--	--	--	--	--	Assumed zero	--	06/2015
Cholesterol	mg	0	--	--	--	--	--	--	--	--	Assumed zero	--	08/1982

## Amino Acids

Nutrient	Unit	Value Per100 g	Data Points	Std. Error	Min	Max	df	LB	UB	# Studies	Source	NDB Ref	Last Modified
<b>Other</b>													
Alcohol, ethyl	g	0.0	--	--	--	--	--	--	--	--	Assumed zero	--	04/1985
Caffeine	mg	0	--	--	--	--	--	--	--	--	Assumed zero	--	11/2002
Theobromine	mg	0	--	--	--	--	--	--	--	--	Assumed zero	--	11/2002

Nutrient	Unit	Value Per100 g	Data Points	Std. Error	Min	Max	df	LB	UB	# Studies	Source	NDB Ref	Last Modified
<b>Flavonoids</b>													
Anthocyanidins													
Cyanidin <sup>29</sup>	mg	0.02	--	0	0	0.03	--	--	--	--	--	--	--
Flavan-3-ols													
(+)-Catechin <sup>30 31 32 33</sup>	mg	1.2	--	0.61	0	6.74	--	--	--	--	--	--	--
(-)-Epigallocatechin <sup>30</sup>	mg	0.0	--	--	0	0	--	--	--	--	--	--	--
(-)-Epicatechin <sup>30 31 32 33</sup>	mg	4.7	--	2.25	0	21.86	--	--	--	--	--	--	--
(-)Epicatechin 3-gallate <sup>30</sup>	mg	0.0	--	--	0	0	--	--	--	--	--	--	--
(-)Epigallocatechin 3-gallate <sup>30</sup>	mg	0.0	--	--	0	0	--	--	--	--	--	--	--
(+)-Gallocatechin <sup>30</sup>	mg	0.0	--	--	0	0	--	--	--	--	--	--	--
Flavanones													
Eriodictyol <sup>29</sup>	mg	0.0	--	0	0	0	--	--	--	--	--	--	--
Hesperetin <sup>29</sup>	mg	0.0	--	0	0	0	--	--	--	--	--	--	--
Naringenin <sup>29</sup>	mg	0.0	--	0	0	0	--	--	--	--	--	--	--
Flavones													
Apigenin <sup>34 35</sup>	mg	0.0	--	0	0	0	--	--	--	--	--	--	--
Luteolin <sup>34 35</sup>	mg	0.0	--	0	0	0	--	--	--	--	--	--	--
Flavonols													
Kaempferol <sup>34 35</sup>	mg	0.0	--	0	0	0	--	--	--	--	--	--	--
Myricetin <sup>34 35</sup>	mg	0.0	--	0.01	0	0.05	--	--	--	--	--	--	--
Quercetin <sup>29 31 32 33 34 35 36</sup>	mg	0.6	--	0.14	0	3.01	--	--	--	--	--	--	--
Isoflavones													
Daidzein <sup>37</sup>	mg	0.00	--	--	0	0	--	--	--	--	--	--	--
Genistein <sup>37</sup>	mg	0.00	--	--	0	0	--	--	--	--	--	--	--
Total isoflavones <sup>37</sup>	mg	0.00	--	--	0	0	--	--	--	--	--	--	--
Proanthocyanidin													
Proanthocyanidin dimers <sup>21 22 23 24 25 26 27 28</sup>	mg	4.4	--	4.93	0	17.07	--	--	--	--	--	--	--
Proanthocyanidin trimers <sup>21 22 25 27 28</sup>	mg	2.7	--	3.82	0	11.52	--	--	--	--	--	--	--
Proanthocyanidin 4-6mers <sup>21 22 25</sup>	mg	13.3	--	17.58	0	49.98	--	--	--	--	--	--	--
Proanthocyanidin 7-10mers <sup>21 22</sup>	mg	0.1	--	0.05	0	0.1	--	--	--	--	--	--	--
Proanthocyanidin polymers (>10mers) <sup>21 22</sup>	mg	0.0	--	0	0	0	--	--	--	--	--	--	--

Sources of Data

<sup>1</sup>Nutrient Data Laboratory, ARS, USDA National Food and Nutrient Analysis Program Wave 6f, 2002 Beltsville MD

<sup>2</sup>Nutrient Data Laboratory, ARS, USDA Continued monitoring of the nutrient content of selected key foods, University of Georgia, 1993 Beltsville MD

<sup>3</sup>Food and Drug Administration (FDA), DHHS FDA Total Diet Study, 2003

<sup>4</sup>Food and Drug Administration (FDA), DHHS FDA Total Diet Study, 1995

<sup>5</sup>Food and Drug Administration (FDA), DHHS FDA Total Diet Study, 1996

<sup>6</sup>Food and Drug Administration (FDA), DHHS FDA Total Diet Study, 1997

<sup>7</sup>Food and Drug Administration (FDA), DHHS FDA Total Diet Study, 1998

<sup>8</sup>Food and Drug Administration (FDA), DHHS FDA Total Diet Study, 1999

<sup>9</sup>*Food and Drug Administration (FDA), DHHS FDA Total Diet Study, 2000*<sup>10</sup>*Food and Drug Administration (FDA), DHHS FDA Total Diet Study, 2001*<sup>11</sup>*Food and Drug Administration (FDA), DHHS FDA Total Diet Study, 2002*<sup>12</sup>*Food and Drug Administration (FDA), DHHS FDA Total Diet Study, 2004*<sup>13</sup>*Food and Drug Administration (FDA), DHHS FDA Total Diet Study, 1991*<sup>14</sup>*Food and Drug Administration (FDA), DHHS FDA Total Diet Study, 1992*<sup>15</sup>*Food and Drug Administration (FDA), DHHS FDA Total Diet Study, 1989*<sup>16</sup>*Food and Drug Administration (FDA), DHHS FDA Total Diet Study, 1990*<sup>17</sup>*Food and Drug Administration (FDA), DHHS FDA Total Diet Study, 1993*<sup>18</sup>*Food and Drug Administration (FDA), DHHS FDA Total Diet Study, 1994*<sup>19</sup>*S.L. Booth, J.A. Sadowski, J.A. T. Pennington Phylloquinone (Vitamin K) Content of Foods in the U.S. Food and Drug Administration's Total Diet Study, 1995 Journal of Agricultural and Food Chemistry 43 6 pp.1574-1579*<sup>20</sup>*G. Ferland, D. MacDonald, J.A. Sadowski Development of a diet low in vitamin K (phylloquinone), 1992 J. American Dietetic Assoc 92 5 pp.593-597*<sup>21</sup>*Gu, L., Kelm, M.A., Hammerstone, J.F., Beecher, G., Holden, J., Haytowitz, D., Gebhardt, S., and Prior, R.L. Concentrations of proanthocyanidins in common foods and estimations of normal consumption, 2004 J. Nutr. 134 pp.613-617*<sup>22</sup>*Hellström, Törrönen, A.R., and Matilla, P.H. Proanthocyanidins in common food products of plant origin, 2009 J. Agric. Food Chem. 57 pp.7899-7906*<sup>23</sup>*Mangas, J.J., Suarez, B., Picinelli, A., Moreno, J., and Blanco, D. Differentiation by phenolic profile of apple juices prepared according to two membrane techniques, 1997 J. Agric. Food Chem. 45 pp.4777-4784*<sup>24</sup>*Mullen, W., Marks, S., and Crozier, A. Evaluation of phenolic compounds in commercial fruit juices and fruit drinks, 2007 J. Agric. Food Chem. 55 pp.3148-3157*<sup>25</sup>*Oszmianski, J., Wolniak, M., Wojdylo A., and Wawer, I. Comparative study of polyphenolic content and antiradical activity of cloudy and clear apple juices, 2007 J. Sci. Food Agric. 87 pp.573-579*<sup>26</sup>*Schieber, A., Keller, P., and Carle, R. Determination of phenolic acids and flavonoids of apple and pear by high-performance liquid chromatography, 2001 J. Chrom. A. 910 pp.265-273*<sup>27</sup>*Spanos, G.A., Wrolstad, R.E., and Heatherbell, D.A. Influence of processing and storage on the phenolic composition of apple juice, 1990 J. Agric. Food Chem. 38 pp.1572-1579*<sup>28</sup>*Suarez-Valles, B., Sanatamaria-Victorero, J., Mangas Alonso, J.J., and Blanco- Gomis, D. High-performance liquid chromatography of the neutral phenolic compounds of low molecular weight in apple juice., 1994 J. Agric. Food Chem. 42 pp.2732-2736*<sup>29</sup>*Mullen, W., Marks, S., and Crozier, A. Evaluation of phenolic compounds in commercial fruit juices and fruit drinks., 2007 J. Agric. Food Chem. 55 pp.3148-3157*<sup>30</sup>*Arts, I. C. W., van de Putte, B., and Hollman, P. C. H. Catechin content of foods commonly consumed in the Netherlands. 2. Tea, wine, fruit juices, and chocolate milk., 2000 J. Agric. Food Chem. 48 pp.1752-1757*<sup>31</sup>*Schieber, A., Keller, P., Carle, R. Determination of phenolic acids and flavonoids of apple and pear by high-performance liquid chromatography, 2001 J. Chromatogr. A 910 pp.265-273*<sup>32</sup>*Spanos, G.A. and Wrolstad, R.E. Influence of processing and storage on the phenolic composition of Thompson seedless grape juice., 1990 J. Agric. Food Chem. 38 7 pp.1565-1571*<sup>33</sup>*Valles, B.S., Santamaria Victorero, J., Mangas Alonso, J.J., and Blanco Gomis, D. High-performance liquid chromatography of the neutral phenolic compounds of low molecular weight in apple juice., 1994 J. Agric. Food Chem. 42 pp.2732-2736*<sup>34</sup>*Hertog, M. G. L., Hollman, P. C. H., and van de Putte, B. Content of potentially anticarcinogenic flavonoids of tea infusions, wines, and fruit juices., 1993 J. Agric. Food Chem. 41 pp.1242-1246*<sup>35</sup>*Sampson, L., Rimm, E., Hollman, P.C.H., de Vries, J.H.M., and Katan, M.B. Flavonol and flavone intakes in US health professionals, 2002 J. Am. Diet. Assoc. 102 10 pp.1414-1420*<sup>36</sup>*Price, K. R., Prosser, T., Richetin, A. M. F., and Rhodes, M. J. C. A comparison of the flavonol content and composition of dessert, cooking and cider-making apples; distribution within the fruit and effect of juicing., 1999 Food Chem. 66 pp.489-494*<sup>37</sup>*Horn-Ross, P. L., Barnes, S., Lee, M., Coward, L., Mandel, E., Koo, J., John, E. M., and Smith, M. Assessing phytoestrogen exposure in epidemiologic studies: development of a database (United States)., 2000 Cancer Causes and Control 11 pp.289-298***Footnotes**<sup>a</sup> Includes juice box